Policy Committee Meeting Agenda

Clean Water Council

July 25, 2025

9:30 a.m. – 12:00 p.m.

WebEx Only

Policy Committee: John Barten, Rich Biske (Chair), Gail Cederberg, Kelly Gribauval-Hite, Chris Meyer, Peter Schwagerl, Marcie Weinandt, and Jessica Wilson

9:30 Regular Business

- Introductions
- Approve today's agenda
- Approve minutes of previous meeting(s)
- Chair update
- Staff update

9:45 Public Comment

Members of the public who would like to provide comment about something not on the agenda are welcome to do so at this time.

10:00 Policy Committee Topics Calendar

In the May meeting, the prioritization of topics was revisited and finalized. This meeting, we will set the topics to a calendar so that speakers may be invited.

10:30 Engagement subcommittee: Setting direction for Council Members in soliciting survey input

As the survey is finalized, Council Members will be asked to solicit input. This time will be dedicated to discussing how to support and encourage Council Members in that task.

10:45 BREAK

11:00 Climate Action Framework

The 2022 Climate Action Framework is being updated this year "to provide more specific, actionable steps to guide climate action at the necessary pace and scale." This presentation will focus in on two goals of the Framework that have the most relevance to the Clean Water Council. Members will be asked to provide input on what they like, what they feel could be enhanced (and how), and what might be missing.

12:00 Adjourn

Policy Committee Meeting Summary
Clean Water Council (Council)
May 30, 2025, 9:30 a.m. to 12:00 p.m.

Committee Members present: John Barten, Rich Biske (Chair), Kelly Gribauval-Hite, Chris Meyer, Peter Schwagerl, Marcie Weinandt (Vice Chair), and Jessica Wilson.
Members absent: Gail Cederberg.

To watch the Webex video recording of this meeting, please go to https://www.pca.state.mn.us/clean-water-council/policy-ad-hoc-committee, or contact Brianna Frisch.

Regular Business

- Introductions
- Approval of the May 30th meeting agenda and the March 28th meeting summary, motion by John Barten, seconded by Marcie Weinandt. Motion carries unanimously.
- Chair update
  - Council members should stay in touch on relevant meetings to attend, any that are relevant to policy issues. Rich Biske plans to track the sustainable aviation fuel (SAF) in particular.
- Staff update
  - Paul Gardner's last day is June 3rd. He will be taking some well-deserved time off before moving onto other things. We will have a bon voyage event next Thursday.
  - There will likely be a special legislative session.

Review Revised Draft Policy Statement on Large Volume Water Users *(Webex 00:23:00)*

- The meeting packet includes the cleaned-up version, there was another that has all of the documented changes and has a lot of red lines. If you would like to see that version we can get it to you as well. This was after the March meeting.
- Highlights include:
  - Enough information is available to assist with the site conversations.
  - Develop a framework or tool to provide the private sector the ability to better evaluate water risk. A list of the different items is included. Some things are already existing, but some things would be good to have as well.
  - Other ways to weave this topic into already existing efforts and processes, like in Groundwater Restoration and Protection Strategies (GRAPS) and One Watershed One Plan (1W1P), and include it when new planning cycles start, or if there are amendments.
  - Also, looking at capacity building efforts so other can evaluate risks to groundwater supplies more quickly, like the Metropolitan Council, League of Minnesota Cities and the Coalition, of Greater Minnesota Cities.

Discussion:

- Marcie Weinandt: You've really captured the discussion we had. It seems like the Council's role in this, to remind the local units of government, one way or another about the complexity of their zoning issues.
- Jessica Wilson: I see GRAPS and 1W1P, and there are more planning efforts to note at the city level too (wellhead protection, water supply plans, and local water plans). Those all have been at the city level, and the 1W1P is at the watershed scale. Cities have some tenure working with it, and deep knowledge on it, so getting them in coordination together would assist in this area. They can talk together and work together more.
- John Barten: Most of the policy statements have a consistent format with an intro, policy statement, background, are we doing that with this as well? If we do a few modifications to follow that format. *Rich Biske:* I agree. It needs a scope and reference the Council's goal and relevant items. It needs the relevant existing policies and funded programs (the Minnesota Department of Natural Resources

(DNR)'s expanded groundwater monitoring network, make sure GRAPS and WRAPS are included) so the reader understands why the Council might be making a statement on this issue.

- John Barten: Modifying the prohibitions, should we revise it to encourage closed loop geothermal systems, to minimize the use of water. It could be called out more.
- Tannie Eshenaur, Minnesota Department of Health (MDH): We support this for the inclusion of GRAPS and consideration of drinking water supply management areas (DWSMAS).
- Julie Sventek, Metropolitan Council: This could be included in plans developed under the metro service water management and groundwater management frameworks.
- Rich Biske: There are limitations on knowing the cumulative impacts. If there are proposed and applied projects, and another in an adjoining community, but there are proprietary rights, so we don't have a sense of what the cumulative impacts of these different sites may be. Perhaps, it can help compel the state, and local governments, to determine cumulative impacts, while still honoring proprietary rights that an applicant may have.
    - *Jen Kader:* This could be added to the document in the additional content.
    - *Jessica Wilson:* That is a good idea to call it out now, because often it is something that is noticed later, so we should be thinking about that now. It is wise, to have it set up this way in the beginning.
    - *Rich Biske:* I wonder if we look at the larger governance issue, are there any elements that might apply here, that may not be addressed within these suggestions? It might be a good reference before we move this draft forward.
    - *Jessica Wilson:* The west metro pilot of wellhead protection planning at a regional scale might be something to include. It is taking a more regional planning approach, I wonder if we could also highlight it, as a good model and if it could be implemented in other places. Showing an example might be an illustrative way to talk about it.
    - *Judy Sventek, Metropolitan Council:* There could be a way to do a joint plan. It has been successful. It would be up to the MDH to expand it to other areas.
    - *Tannie Eshenaur, MDH*: We would be interested in expanding.
    - *Jason Moeckel*, *DNR*: You may want to talk to a hydrogeologist with the DNR, to make sure you understand exactly what you are including in your policy.
    - *Jessica Wilson:* We should ask the developers to have some responsibility too. Suggesting that state agencies should do this, and local governments should do this, but the developers are a key player, so what do we expect of them? They should seek to understand groundwater available and local capacity. It could be a signal, that they have a responsibility in this too.
    - *Rich Biske:* I think it may be good to share this with the League of Minnesota Cities and encourage them to review it as well? This is part of the stakeholder engagement, if we are really thinking about the interested stakeholders before we finalize it.
    - *Jessica Wilson:* We can get an updated draft. Jen and I can work on that connection with the League.
- An updated draft will be provided at a future meeting for review.

Update on Engagement Plan *(Webex 01:07:00)*

- This plan lays out the schedule to get public input early in the process. We are now in our second quarter, and there are many events the Council member may be attending, as mentioned earlier, that Council members can engage with partners early on. The goal is to help the Council members bring us information and input from their constituents. We had a good conversation at the full Council. We brought those recommendations for this updated draft.
- Highlight some changes:
    - Overall, the comments we've received have been minor. We have received positive feedback.
    - There are better word choices than stakeholders, so we use "interested parties" instead. So, there have been some slight changes to the wording and purpose, what it is supposed to do, and who it is for, in reaction to some comments and questions we've received. Overall, the spirit of the plan has not changed, just addressed the comments. We have also been more specific in how to use this as a tool.
    - There is so much engagement happening already, so now it is about formulating, and formalizing the input. Then, being intentional about integrating it into our decisions. We grab what is already out

there and be intentional about what we do with it. Search for themes, like with like, and how to resources this plan.
    - The roles have been defined more. The audience for this plan is for Council members.
    - As a reminder, this is to be reviewed every January. There will always be an opportunity to have changes in this document.
    - This time is for review and hopefully move it forward for approval of the full Council.

Discussion/Comments/Questions:

- Kelly Gribauval-Hite: When I review this, I see that things are well covered. Business is an area, where it is not as straight forward. From a business sense it is important to bring folks in, and I feel like this does that approach. To have things open is good too. For example, when the policy committee talks about the large volume water user's policy, having something like this document is going to be really useful. For businesses, water is often not in their forethoughts. This brings that engagement and reminds businesses about these items too. We need to push things out to businesses as well, because it is not seen as a priority. It is important, but they are not thinking about it.
- Chris Meyer: I think it is well done. Most of the people that I serve with on a 1W1P policy committee they know that the source of those funds is coming form the Legacy amendment, but I think a lot of the public is not always aware of the work of the Council, where the funding comes from, or aware of the effect that they can see locally. So, messages and ways to bring that forward are important.
- John Barten: I think this is really good. We have only done public participation on an ad hoc process. The folks I represent are hard to get input from. Lakeshore homeowner's associations, have a thousand different opinions. When representing lakes and streams non-profits, aquatic invasive species is the main issue for most of them. In general, it is not a pollutant, and does not degrade water quality, but degrades recreation. It can be difficult. The Minnesota Coalition of Lake Associations also have their own opinions about what should happen. So, trying to bring it to public participation, will provide different perspectives. Bring it forward, work through it, and try to have people agree with the decisions, seems to be a good route. I like that there are timelines here, I like the organization, the approach. It is important to recognize at conferences, it is great to get input from folks on where the Council ought to focus their energies on. You connect with people you may never connect with naturally.
- Rich Biske: I like to see the administrative role included here. Is this deliberately included in your job description? *Answer:* When talking about this earlier in the week, thinking about the role of the administrator, a lot of this work is already happening. It is timing it and sequencing it appropriately. Some of this will be an easy lift, like communicating when events will be happening, where we are in the cycle of engagement, etc. However, somethings may have a larger lift. We can try to be more strategic in the timing, or move faster sometimes, but as we find things beyond current capacity we can talk about it in the next budget cycle. Will have to just try and iterate as we go.
- Marcie Weinandt: Paul was intentional about getting the communication plan put together, and communication documents, and the webpages. We will need a quick review of what is out there, the items we already have. So, Council members know what is available. We have a good platform with the webpages, story board, fact sheets, that we can make available to our members. *Response:* The legwork has been done, and an easy add might be putting the approved policies on our webpage. There is a platform, now we refine, to make it more useful for Council members.
- Rich Biske: We go through so many items with the Council, so knowing when to pause and what resources we have, and how we should be applying them. This engagement plan, it might be good to include it into the agenda to bring it up. Perhaps, the updates section, to help hold us to this, so it is not just Jen. It would be a good prompt. Also, there is a cadence to the engagement opportunities. A lot happens around the same time, if we put the calendars together, so it might be good to have these scheduled out in the year, we can encourage more members to participate and represent the Council. *Response from Jen Kader:* Yes, we can make announcements at the start of meetings, to let folks know, and have people raise their hands for attendance, rounding out attendees as well.
- Marcie Weinandt*: Motion for the policy committee to recommend adoption of the Public Policy Plan, dated May 30, 2025, to the full Council for their adoption. Seconded by John Barten. No discussion. Motion carries unanimously.*

- Rich Biske: Can this be added to the Council's webpage? *Jen Kader:* Yes, once approved at the full Council, we can add this to the webpage. Members of the public can view it and see how they can engage.

Reviewing Policy Priorities Post-Legislative Session *(Webex 01:45:00)*

- This is to revisit the priority topics. It is a good time of year to set what we would like to cover for the upcoming year. The policy ideas have been ranked by the Policy Committee, as well as the public comment from the last recommendations process. I would like to review the policies. Add omissions, like large volume water users. Then, prioritize. Those that are viewed as a high priority, we should set a schedule on for the coming year.
- High priority:
  - Board of Water and Soil Resources (BWSR): Targeted Wellhead/Drinking Water Protection Easements
  - Minnesota Department of Agriculture (MDA): Forever Green Initiative (newer connection to the sustainable aviation fuel (SAF))
  - DNR/MDH/Met Council: Water Reuse
  - MDH/MDA: Private well initiative, Irrigation Water Quality Protection, Monitoring for Pesticides in Surface Water and Groundwater, Nitrate in Groundwater. These include a mention of fees to help support, or in conjunction with Clean Water Funds (CWFs).
  - Minnesota Pollution Control Agency (MPCA): National Park Water Quality Protection Program
  - *High volume water users added to high priority list.*
  - *De-risking systems transformation in Ag added to high priority list.*
- Medium priority:
  - BWSR, MDA, DNR: MN River group seeks to minimize/eliminate hydrologic changes in Minnesota River basin because best management practices (BMPs) are not keeping up with growth of TSS (problem due to land use changes, more drainage, and more precipitation).
  - BWSR: Buffer implementation
  - DNR/MDA: Nonpoint source implementation technical assistance
  - BWSR: Watershed Partners Legacy Grant Program
  - MDA: Conservation Equipment Assistance
  - MDA: Minnesota Agricultural Water Quality Certification (MAWQCP)
- Low priorities will be discussed at a future meeting.

Discussion:

- John Barten: I thought we also had a recommendation to redo the shoreline rules, which are now about thirty-five years old. There have been a lot of complaints about variances as well. Most of the time the variances are allowed, and that undermines the rule.
  - *Response from Rich Biske:* We had at least two presentations with MNCOLA and DNR was a part of that. I think it was called managing shorelines. We struggled to come up with what that policy idea was. We should revisit where we left that off, to try to capture a policy action, whether it is updating the shoreline standards or county guidance, or something. It is an issue with the lake homeowner community. There are significant impacts on lakes. We should look at it again. I support it.
  - *Jessica Wilson:* The DNR also has an assessment of shoreland vegetation, and it may be something else to hear from them.
- Marcie Weinandt: I think we can take the National Park item off the high priority list. We were clear that we would accept a proposal, or not before we get one. We do not give them what they ask for, the legislature does. This project helps local businesses and increases property value, so it is an economic piece too. We can save a lot of discussion time, if we are clear about direct proposals from entities about the CWFs.
  - John Barten: Anyone can submit a proposal. The Riverwatch folks do not do that, and it comes from the legislature. The National Park folks do come to our meeting to talk about their proposal. So, the discussion you are referring to, is if we should be funding individual projects as opposed to funding programs. There are some political sensitivities of this particular project, so we have not come to a decision. There is a lot of support from the northern legislators. We usually kick the can down the

road. We accept a proposal, but do not need to recommend funds. We usually direct them to work with a state agency, to connect them to the funding. I believe that is where we left it. It is a better avenue. The note on the document says to connect to the public facilities authority (PFA) on how this would rank within other programs that also fund this work, if going that route.
    - Marcie Weinandt: We'll leave it on.
    - Rich Biske: It could turn into a policy idea. There is the follow up question for PFA, on how might these rank with others. Also, looking at how the funding has been used with the national parks program. There have been presentations on it but might be good to see where those funds are actually going. It may be two separate things, at two different times.
    - Jen will follow up with Paul when he is back next week.
- Rich Biske: SAF is currently included in the FGI item. Should we consider SAF to have its own policy?
    - Peter Schwagerl: Yes, I think it is a little broader discussion than just FGI. It is one market opportunity within the FGI. It is something we will have to weave into a few different arenas.
    - Rich Biske: It could be an important niche role for the Council. Let's add it on its own in the high priority section.
- Marcie Weinandt: For the nonpoint source implementation technical assistance, it lists "Red River projects experience permit delays with DNR", and that is a constant comment that comes from watersheds. I know Jason Moeckel is aware of it, and others listen in on our Council meetings are often looking for support to increase that process. We can keep reminding that as an impediment.
    - Rich Biske: There was various permit reform bills this last session. We do not know where those ended up. I'm not sure of the origin story of that, so this might be one to add on to the end of session, to see if there is a connection there.
- Rich Biske: For the BWSR Buffer Implementation, it looks like there is an administrative penalty order (APO) note to wait until the fall to report back. Jen Kader will verify which year.
    - Jeff Berg, MDA: I am a member of the BWSR Buffer Soils Committee. There was an APO that the BWSR Board approved. It may be the same agenda item. Connect with Tom Gile.
- Jen Kader: For the BWSR Watershed Partners Legacy Grant Program, there is an encouragement of a significant increase, and I can stay in touch with BWSR on where this is for 2025.
    - Rich Biske: I don't know if that is a policy issue, more like a budget and outcomes (BOC) consideration. I don't know if it belongs here.
    - Jen will inquire.
- Peter Schwagerl: Regarding the MDA MAWQCP, I have some concerns with the language in this tab. Whether it is imprecise language, or decisions of the Council. These are partial reimbursement grants. The grant is a forgivable portion. The whole project is not free. We could argue what an appropriate cost share argument would be. Right now, it says it should be no more than twenty-five percent. For the farming community, fifty percent would be a lot more approachable, and meaningful way to get these things across the finish line. We need to be conscience of how much we are willing to accelerate. If we are okay with a slower pace of adoption, that conscience choice the Council will make. Realize that these statements will slow adoption and will have implications. Perhaps the Council is comfortable with that. Additionally, tying in minimum acreage coverage for the life of equipment, some of these are ten-to-twenty-year lifespans, so from the farmer's perspective we are dealing with unpredictable weather systems and ecological systems. There are possibilities that you may not be able to plant a cover crop, so we need to be careful. When farmers see those hard commitments, they know there will be years that the farmer cannot meet that, and that is impactful in the decision process. For adoption, there are a lot of rented acres in Minnesota. Year to year, it would be easy to lose acres, so it could mean losing funding and adoption.
    - Jen Kader: Thinking about the start of this meeting, talking about risk and finding ways to help encourage, or accelerate, rate of adoption. I wonder if I could offer to make that the name of the topic? It is something that could be more holistically considered. Would this be medium or high priority?
    - Peter Schwagerl: From my perspective, it is one of the highest priorities in Ag. It is how do we de-risk these systems change transformation in Ag. I think that is a great discussion to have. I think it is one of

the important tools to de-risk that transformation. Adding these requirements, would add more risk to this adoption. Now they have other requirements, that they are not one hundred percent in control in.
    - Rich Biske: Sounds good. On the equipment cost-share, I think it might be good to hear about it again.
    - Marcie Weinandt: I would support moving it to a high priority discussion.
- Rich Biske: The Office of the Legislative Auditor will provide us with a review of the MAWQCP. So, the items they are looking at, if we take good notes, we can table until after their review. We can consider if there are any recommendations afterwards.
- Jessica Wilson: I would like to review the chloride reduction policy again. It is fine to be a low priority, there is no urgency there. I am interested in bringing it forward and keep it on our radar for this year.
    - Rich Biske: It would be good to hear again about treatment, remediation, and technologies that go along with it.

Adjournment *(Webex 02:16:09)*

Clean Water Council

Prioritized List of Policy Ideas as of 7/25/25

Agency	Current Program	Public Comment	Staff comments	Response
HIGH PRIORITY (Near term action should be considered)				
BWSR	Targeted Wellhead/Drinking Water Protection Easements	Environmental group supports paying fair market value for easements within high risk DWSMAs. They feel it is cheaper than water plant de-nitrification.		Protecting 400,000 acres in vulnerable DWSMAS is a high priority for the Council.
MDA	Forever Green Initiative		(The only comments related to consideration of this program were in relation to SAF. Is there another area of focus for the Policy Committee for this program?)	
	N/A	Sustainable Aviation Fuel	• The Policy Committee heard a presentation on SAF on 8/23. Full council has expressed interest in the topic.	Yes, to considering a water policy statement for SAF and the council should consider a statement regarding the use of CWF to subsidize basic requirements SAF
DNR MDH Met Council	N/A	Funding needed for water reuse, especially capital improvement funds. State also needs a statewide reuse policy and guidelines. Incentives are needed for better irrigation.		MDH coming out with report in November. Await results. MDH would like to hand over to MPCA and MDH.
MDH MDA	Private well initiative Irrigation Water Quality Protection Monitoring for Pesticides in Surface Water and Groundwater Nitrate in Groundwater	Several environmental groups want these programs to be supported by the responsible parties through fees. These activities previously relied on other funding sources.	• It is always a good time to discuss what funding sources would be needed if the Legacy Amendment expires and isn't renewed in its current form. • DNR charges groundwater fees but MDA runs the irrigation WQ protection program—would an additional fee be charged on the water and sent to MDA? • A modest fertilizer fee increase was proposed ($0.99 per ton and then $0.40 per ton) in the Legislature in 2024 but failed. It would have funded a limited amount of mitigation ($5M?).	• Identifying users, fee structures and the extent CWF supplements would be interesting and help inform potential rate increases. • Emerging concern with CWF paying for the carbon and environmental benefits of renewable energy like SAF when there's a market or potential market that pays a premium

			• It would be good to model what the cost would be to carry these programs out and what it would cost per unit of product.	
MPCA (pass through)	National Park Water Quality Protection Program	Several organizations oppose earmarking funds in the CWF recommendations to avoid precedent. They also are concerned about this funding supporting additional development in a unique environment.	• The policy at work here is whether we earmark specific projects.	We should ask PFA and PCA how this would rank within other programs that also fund this work. And receive in writing how much of the funding is going to private businesses. •
	Update Shoreline rules to limit variances		• This has been presented on at previous policy committee needs, but there was not enough clarity about the policy need.	Revisit where this was left, and determine what the next policy step could/should be. Especially in conjunction with the vanishing shorelines report. Perhaps review the methodology for assessing shoreline vegetation.
	Large-volume water users	Several organizations are concerned about the impact of large-volume water users on groundwater sustainability	• Recent action by the legislature has increased oversight of data centers, but large-volume water users in general should still be considered as new industries and users emerge over time	
	De-risking system transformation in ag		• This, in a way, is a combination of several individual topics in this table, including Forever Green, Conservation Equipment Assistance, MAWQCP, and AgBMP Loan programs. • It also weaves in topics that were discussed at the Forever Green forum earlier this year.	
MEDIUM PRIORITY (There is interest but more info is needed)				
BWSR MDA DNR	N/A	MN River group seeks to minimize/eliminate hydrologic changes in Minnesota River basin because BMPs are not keeping up with growth in TSS. Problem due to land use changes, more drainage, and more precipitation.		Current drainage policy statement is sufficient for now. Pursue water storage options. Not ready to take on tile drainage.
BWSR	Buffer Implementation	Environmental groups would like to see administrative penalty order (APO) authority used to enforce		BWSR is discussing APO this fall and can report back.

		buffer law for those not in compliance, rather than only using CWFs to help them get in compliance. Fines could also help fund the work.		
DNR MDA	Nonpoint Source Implementation Technical Assistance	Red River projects experience permit delays with DNR. Please encourage state agencies to standardize and streamline process.		Refer to DNR and/or MDA
MDA	Conservation Equipment Assistance	Ag stakeholders support ownership rather than a rental model and support the idea of those producers being able to do custom work for other farms.	The BOC has discussed this a bit. There was some discomfort about free equipment that someone could use to set up a business. Advocates say we should want a producer to use the equipment on as many acres as possible no matter who owns it for maximum water quality benefits.	It shouldn't be free, and if it's being fully paid for without a requirement of performance, then a policy should be put in place. Cost-share should be for no more than 25% and there should be a minimum annual acreage performance requirement for the life of the equipment. Grant as a forgivable *portion* of a project. 50% as a more meaningful way to get things across the finish line. Reduction in amount could slow adoption. Minimum acreage requirement—these are happening within biological systems with variability. Rented vs. owned acreage can impact amount of use. This could add risk to the decision and also limit use.
MDA	MN Agricultural Water Quality Certification Program	Use the program as a conduit for more soil health BMPs.	• MAWQCP does provide up to $5,000 grants to producers to support BMPs. • A discussion is warranted about synchronizing multiple CWF programs that support soil health to make sure we are maximizing acreage and not leaving funds on the table in any one program.	• It would be good for MDA to quantify environmental outcomes at a watershed scale and to understand how the program is interacting with other programs for cumulative impact at a watershed scale Perhaps table until after the OLA audit, then revisit to see if changed priority or policy needs are there.

LOW PRIORITY				
MPCA	Chloride Reduction	Chloride application liability protection for snow removal businesses with Smart Salting certification	Already in Council policy platform	Low priority, but important to bring up for review in this year if we are able to because it should be a lighter lift.
BWSR	One Watershed One Plan and Watershed Based Implementation Funding	A metro county SWCD believes that 1W1P is redundant within metro area where conservation districts and watershed districts have done much of the planning already.		This is something BWSR should be able to look into and elevate to the council if warranted.
BWSR	Various grant programs	Bois de Sioux Watershed Districts asks that flood control be eligible since it impacts water quality since drainage management can reduce TSS and P at lower cost than cover crops. They ask the Council to evaluate grant portfolio by problem scale.		Projects that have flood control as the main objective may not be constitutional under the Legacy Amendment.
DNR	Culvert Replacement Incentives	Bois de Sioux asks Council to recognize conflict between connectivity and flood control in Red River basin.		
DNR	Water Storage	The Red River is not getting CWFs for water storage. Funding is going to less organized parts of the state. Make the distribution uniform.	Water storage funding on a larger scale is being done via other funding sources than CWF.	However, the DNR water storage line item in FY24-25 was only for two projects on state owned land in SW MN. DNR is not asking for funding in FY26-27.
MDA	Agricultural Best Management Practices Loan Program	A lender suggests re-allocating unspent funds from some counties to counties with higher need and larger backlog.	Let's ask MDA if there are any counties that have unspent funds to see if there is an issue. MDA has usually indicated that these funds get committed pretty quickly statewide?	

2025 Climate Action Framework

Draft action steps

Share your feedback on climate solutions that will be included in Minnesota's 2025 Climate Action Framework.

MINNESOTA

2025 CLIMATE ACTION FRAMEWORK – DRAFT ACTION STEPS

Share your feedback on climate solutions that will be included in Minnesota's 2025 Climate Action Framework.

Updating our framework

In 2022, Minnesota released our Climate Action Framework — a vision for how our state will address and prepare for climate change. Over the last three years, we've made significant progress on climate action. Billions of dollars in state and federal funding have advanced dozens of programs to cut climate pollution and prepare our state for a warmer, wetter Minnesota.

Minnesota is updating our Climate Action Framework in 2025 to include a more comprehensive set of actions with a stronger focus on collaboration, community benefits, and workforce needs. Though we have made progress, we must accelerate the pace and scale of our climate actions to achieve our long-term vision of a carbon-neutral, resilient, and equitable future.

Minnesota state government wants to hear how climate change is impacting your community and the actions you'd like to see included in the 2025 Climate Action Framework. Share your feedback on the draft action steps included in this document by following the instructions below.

As part of the 2025 Climate Action Framework update process, we called for public feedback on the state's *Ideas for Climate Action* document in January. This document included specific initiatives and subinitiatives for each of the framework goals. We received over 200 public comments through our online engagement platform and hosted conversations with hundreds of Minnesotans to discuss their feedback. Those comments were all reviewed, organized by chapter, and shared with the groups updating the framework. Some of those comments helped to inform the 2025 action steps included here.

What are the draft action steps?

This document includes draft action steps for the 2025 Climate Action Framework. These steps identify key actions Minnesotans can take to achieve the vision of our framework – a carbon-neutral, resilient, and equitable future for Minnesota. Some of these actions were included in the 2022 framework and expand on work state agencies are doing. Others are new to the 2025 framework and reflect progress made on our original goals.

Understanding the tables:

- The tables are organized by the goals outlined in each framework chapter.
- Initiatives describe areas of action, with subinitiatives further specifying areas of work.

Share your feedback

The state wants your input on the future of climate action in Minnesota. The 2025 Climate Action Framework project team will review your input and consider your perspective as the new framework is developed.

Here's how you can help:

1. Review the draft action steps included in this document.
2. Have comments? Share your input by visiting our online engagement platform to complete the survey (https://engage.eqb.state.mn.us/climate-action-framework-update). Please reference the specific action step by its number.

Goal 1 – Clean transportation

Connect and serve all people through a safe, equitable, and sustainable transportation system

Initiative 1.1: Travel options

Maintain and improve multimodal transportation connections to improve mobility and reduce emissions

Sub-initiative	State action steps
1.1.1 Design, implement, and maintain infrastructure network improvements for walking, rolling, and bicycling	1.1.1.1 Scope transportation projects, including projects in Greater Minnesota, to include facilities for people walking, bicycling, rolling, and taking transit.
	1.1.1.2 Evaluate current funding priorities and direct more resources towards non-motorized transportation to support improved pedestrian and bicycle facilities that are safe, attractive, and accessible for all people.
	1.1.1.3 Deploy projects that temporarily demonstrate improvements for people walking and bicycling to assess opportunities for permanent improvements.
	1.1.1.4 Provide cost-sharing opportunities for developers, employers, and communities to include spaces for people to walk.
	1.1.1.5 Develop resources, guidance, and technical assistance for partners (e.g., elected officials, engineers, community advocates) to support integration of a Complete Streets approach into transportation projects.
	1.1.1.6 Accelerate the enhancement of pedestrian and bicycle networks aligned to state bike and pedestrian plans.
1.1.2 Promote regional and local land use policies that encourage compact and multimodal-oriented development	1.1.2.1 Provide technical assistance to local partners on reducing greenhouse gas emissions and mitigating climate-related impacts through land use and zoning updates in their comprehensive plans (e.g., policies that encourage compact development, transit-oriented development, and a range of travel options).
	1.1.2.2 Explore updating Minnesota Department of Transportation's project prioritization process in collaboration with Metropolitan Planning Organizations to prioritize projects that enhance transit-oriented and walkable land uses.
1.1.3 Increase transit systems and shared mobility options	1.1.3.1 Prioritize transit and high occupancy vehicles on Minnesota Department of Transportation-owned right of way.
	1.1.3.2 Create more reliable and convenient transit networks, with priority given to communities with limited options and where residents are disproportionately impacted by air pollution.
	1.1.3.3 Encourage modal shifts away from single-occupant vehicles through infrastructure improvements, education, programs and services.
	1.1.3.4 Develop and improve multimodal options including intercity passenger rail and intercity bus within and between cities and regions.
1.1.4 Implement technological, financial, and market-driven solutions to decarbonizing transportation and increasing mobility	1.1.4.1 Support broadband connectivity, particularly for rural and underserved areas, to provide more options to provide increased telework and telehealth opportunities and reduce the need for travel.
	1.1.4.2 Provide point-of-purchase rebates for new and used e-bikes.

Initiative 1.2: Clean and efficient vehicles

Accelerate the transition to electric vehicles (EVs) or zero-emission vehicles (ZEVs) and advanced clean fuels

Sub-initiative	State action steps
1.2.1 Reduce the carbon intensity of transportation fuels	1.2.1.1 Develop a clean transportation fuels standard to incentivize increased investment in a broad portfolio of cleaner fuels, including advanced biofuels, renewable natural gas, other renewable fuels, sustainable aviation fuel, electricity, and charging infrastructure.
	1.2.1.2 Follow the Governor's Council on Biofuels recommendations.
1.2.2 Expand EV or ZEV charging infrastructure	1.2.2.1 Implement the Minnesota Electric Vehicle Infrastructure Plan that includes state actions to increase EV charging infrastructure, increase EV access and availability, and educate communities about the benefits of EVs.
	1.2.2.2 Coordinate with neighboring states, Tribal Nations, and other potential partners to implement the Regional Electric Vehicle (REV) Midwest Memorandum of Understanding which will establish an EV charging network across the Midwest.
	1.2.2.3 Increase funding for EV owners, workplaces, local governments, and other site hosts for Level 2 and DC fast charger stations.
	1.2.2.4 Increase funding for medium- and heavy-duty vehicle charging, including transit.
	1.2.2.5 Create opportunities to better connect co-ops, municipal utilities, and investor-owned utilities to discuss best practices related to EV chargers.
	1.2.2.6 Engage fuel providers to understand the role they would like to play in EV charger deployment.
	1.2.2.7 Amend state building code to support accessible EV charging and make new construction and commercial buildings EV-ready.
	1.2.2.8 Coordinate with state and federal agencies to identify opportunities for battery recycling and reuse.
1.2.3 Accelerate the adoption of light-duty EVs or ZEVs	1.2.3.1 Develop dealer and salesperson recognition and incentive program, building off efforts like the Xcel Energy Gold Status Dealer program.
	1.2.3.2 Encourage EV targets for government and corporate fleets, including light-duty vehicles.
	1.2.3.3 Create income-based car swap programs to replace older vehicles with EVs or ZEVs.
	1.2.3.4 Provide point-of-purchase rebates for new and used EVs.
	1.2.3.5 Advocate for stricter vehicle fuel economy and emissions standards at the federal level.
1.2.4 Transition to medium- and heavy- duty EVs	1.2.4.1 Set EV targets for medium- and heavy-duty vehicles in government fleets and promote targets for private, corporate fleets.
	1.2.4.2 Incentivize the retirement of inefficient vehicles and replacement with EVs or ZEVs.
	1.2.4.3 Explore options for transitioning to medium- and heavy-duty EVs or ZEVs.
1.2.5 Transition to zero-emission off-road vehicles, engines, and equipment	1.2.5.1 Develop a marketing campaign in collaboration with stakeholders (e.g., auto dealers) to improve consumer understanding of EVs and electrified off-highway equipment.
	1.2.5.2 Incentivize the retirement of inefficient off-road vehicles and other engines and equipment.
	1.2.5.3 Develop and implement a public education campaign on the benefits of zero-emission off-road vehicles, engines, and equipment (e.g., lawn mowers, ATVs, forklifts).

Initiative 1.3: Resilient and low carbon infrastructure and system management

Maximize resiliency and greenhouse gas mitigation in infrastructure and operations

Sub-initiative	State action steps
1.3.1 Optimize transportation system management and operations [e.g., to reduce peak demand and improve safety and reliability]	1.3.1.1 Evaluate actions that reduce vehicle demand for highways to reduce congestion in upcoming transportation planning processes.
	1.3.1.2 Encourage local governments to implement transportation demand management policies.
	1.3.1.3 Increase the installation of snow fencing and other structures that reduce winter maintenance.
	1.3.1.4 Consider and weigh the costs of greenhouse gas emissions during all phases of project (e.g., scoping, pre-design, design, bidding, installation, maintenance).
1.3.2 Design the transportation system to be resilient to climate hazards	1.3.2.1 Coordinate with partners to manage stormwater and support transportation infrastructure resilience to extreme weather.
1.3.3 Utilize low carbon materials and methods for constructing and maintaining transportation infrastructure	1.3.3.1 Prioritize the reuse of materials throughout construction process to minimize the carbon footprint of transportation construction projects.
	1.3.3.2 Prioritize the cost effectiveness of greenhouse gas emissions throughout the construction process (e.g., distance for materials to travel, variety of materials and mixes used on a site).
1.3.4 Utilize the transportation system right-of-way for alternative beneficial uses	1.3.4.1 Examine opportunities to advance Next Generation Highways by co-locating broadband and electricity transmission in highway right-of-way.
	1.3.4.2 Coordinate carbon sequestration efforts within highway right-of-way.
	1.3.4.3 Examine and coordinate the installation of renewable energy within the transportation right-of-way.

Goal 2 – Climate-smart natural and working lands

Enhance climate benefits by absorbing and storing carbon, reducing emissions, and sustaining resilient landscapes

Initiative 2.1: Carbon sequestration and storage in forested lands, grasslands, and wetlands

Manage forests, grasslands, and wetlands for increased carbon sequestration and storage

Sub-initiative	State action steps
2.1.1 Maintain, expand, and actively manage forestlands	2.1.1.1 Accelerate tree planting to expand forest cover where ecologically appropriate.
	2.1.1.2 Increase statewide seedling production to support tree planting efforts, including rectifying pinch points in seed supply and enhancing production of climate-adapted species.
	2.1.1.3 Invest in active forest management on public and private lands as a tool for promoting carbon uptake and reducing emissions from diseases, pests, and wildfires.
	2.1.1.4 Avoid conversion of forestland to other uses through private forest owner assistance, forestland acquisition and conservation easements, and sustainable forest management including timber harvest.
2.1.2 Protect, restore, and manage peatlands and other wetlands	2.1.2.1 Develop and share technical assistance on restoration of drained peatlands, with an emphasis on cropped and pastured peatlands and identify peatlands that can effectively be restored to stable hydrologic conditions, to increase resilience of these landscapes to rising temperatures.
	2.1.2.2 Protect and restore existing peatlands and other wetlands through conservation easements, wetland banking, and other land management programs and tools.
2.1.3 Protect, restore, and manage grasslands	2.1.3.1 Protect native prairie and prairie pothole wetlands as well as restored grasslands and wetlands through fee title acquisition of public lands and easements on private lands.
	2.1.3.2 Use high-diversity, climate-adapted seed mixes in restoration and address challenges in seed sourcing and supply for restoring grasslands and wetlands.
	2.1.3.3 Enhance and manage existing grasslands and wetlands.
2.1.4 Encourage individual actions that generate climate mitigation benefits	2.1.4.1 Promote small-scale actions on natural and working lands such as establishing pollinator and prairie plantings, enhancing shorelines, and planting trees and shrubs that can collectively add up to meaningful climate benefits.
	2.1.4.2 Foster individual and collective actions that produce meaningful climate mitigation benefits on natural and working lands.

Initiative 2.2 Resilient landscapes and ecosystems

Enhance the ability of plants and wildlife to adapt to the effects of climate change

Sub-initiative	State action steps
2.2.1 Conserve and enhance biodiversity	2.2.1.1 Restore and expand habitat complexes and corridors to protect wildlife and allow species to shift their range.
	2.2.1.2 Work with local governments in developing regional and local land conservation plans identifying priority locations for habitat protection, enhancement, and restoration.
	2.2.1.3 Manage invasive species through conservation partnership and recreation outreach to promote climate resilience.
	2.2.1.4 Foster individual and collective actions that conserve and enhance biodiversity.
2.2.2 Use land management practices that enhance climate resilience	2.2.2.1 Increase native species diversity in grassland and wetland restoration using locally appropriate seed mixes expected to do well under projected climate conditions.
	2.2.2.2 Plant, seed, or promote tree species expected to do well under projected climate conditions.
	2.2.2.3. Enhance the ability of forests to adapt to climate change using sustainable forest management strategies.

Initiative 2.3: Healthy farmland

Accelerate soil health and nitrogen and manure management practices that reduce emissions and enhance carbon storage, water quality, and habitat

Sub-initiative	State action steps
2.3.1 Increase soil organic carbon content and reduce erosion	2.3.1.1 Increase incentives and expand markets for practices such as cover crops, conservation tillage, diverse crop rotations, buffers, shelterbelts, hedgerows and perennial crops that sequester carbon and increase resilience by restoring soil health.
	2.3.1.2 Investigate feasibility and develop programs for use of biochar and other soil amendments on cropland, pastureland, and forestland.
	2.3.1.3 Expand incentive programs for farmers to preserve woodlands and incorporate new trees and natural habitat into agricultural landscapes, where ecologically appropriate, to protect against wind and water erosion and store carbon.
	2.3.1.4 Avoid conversion of prime farmland to developed land and promote more compact and efficient land use planning and development.
2.3.2 Manage fertilizer and manure to reduce emissions	2.3.2.1 Encourage and incentivize nitrogen and methane management practices that will reduce emissions through grants, education, and the Groundwater Protection Rule.
	2.3.2.2 Increase use of nitrogen management practices that will increase nitrogen use efficiency and reduce nitrous oxide emissions, such as nitrification inhibitors, split-N applications, precision agriculture, plant selection and breeding, soil amendment technologies and others.
	2.3.2.3 Develop and implement programs supporting adoption of methane reduction activities related to livestock and manure, such as livestock feed management, anaerobic digestion, manure storage covers and flares, and acidification management of manure storage.
2.3.3 Manage farmland for multiple benefits	2.3.3.1 Increase the range of compatible uses of conserved lands such as haying, grazing, or tree crops to increase participation in land conservation easement programs.
	2.3.3.2 Promote conversion of marginal farmland to pastureland, perennial crops, woodland, and forage crops to enhance carbon capture, water quality protection, and wildlife habitat through set-aside programs.
	2.3.3.3 Promote and fund production forestry, short rotation woody crops, and using trees as windbreaks in agricultural settings where ecologically appropriate.
	2.3.3.4 Incentivize and expand best management practices (BMPs) for climate-resilient agricultural and forestry implementation assistance, such as access to technologies, equipment, and seed and plant material.
	2.3.3.5 Provide support to farmers to adopt practices that decrease emissions, improve soil health, sequester carbon and improve water quality, through programs like the Minnesota Agricultural Water Quality Certification Program or similar programs.

Initiative 2.4: Sustainable landscapes and water management

Improve climate resiliency through multi-purpose water storage and management practices

Sub-initiative	State action steps
2.4.1 Manage agricultural landscapes to minimize nitrogen runoff and pollution	2.4.1.1 Prioritize groundwater and drinking water protection in vulnerable areas.
	2.4.1.2 Protect, restore, and enhance perennial cover in priority Drinking Water Supply Management Areas.
	2.4.1.3 Protect, restore, and enhance wetlands to absorb, filter, and use excess nutrients and help recharge and protect groundwater and drinking water.
	2.4.1.4 Implement the Nitrogen Fertilizer Management Program in vulnerable areas as defined by township testing results.
	2.4.1.5 Promote fertilizer and manure application practices that minimize nitrogen loss through implementation of the Feedlot Rule and General Permit.
2.4.2 Manage natural and working lands to hold water and reduce runoff	2.4.2.1 Increase water storage, infiltration, and drainage management to reduce runoff, prevent depletion of aquifers, and minimize downstream flooding, erosion, and habitat loss.
	2.4.2.2 Restore natural stream stability where possible to reduce erosion, increase habitat diversity, and decrease maintenance and infrastructure costs.
	2.4.2.3 Assist local government units with identifying and prioritizing locations for water storage as part of watershed planning, emphasizing practices such as wetland and floodplain restoration, drainage water management, and buffer establishment.
	2.4.2.4 Encourage water recycling where feasible to sustain aquifers and lessen demands on drinking water supplies.
	2.4.2.5 Encourage multipurpose drainage design and retrofitting that provides adequate drainage capacity while reducing downstream peak flows, erosion, and sedimentation, and improving water quality and aquatic habitat.
	2.4.2.6 Retain and manage forests that store rainwater and snowmelt and reduce flood risk—buffering against the negative impacts of changing precipitation patterns.
	2.4.3.2 Retain and manage grasslands and wetlands to hold water and reduce runoff.

Initiative 2.5: Investments in emerging crops, products, and local economies

Invest and support research in emerging agricultural and forest products, reduce waste and expand economic opportunities

Sub-initiative	State action steps
2.5.1 Strengthen sustainable agricultural production systems and develop markets for climate-benefitting products	2.5.1.1 Invest in new markets and supply chains for perennial crops and harvestable crops that keep soil covered year-round.
	2.5.1.2 Support and expand genetic and agronomic research and market/supply-chain development for crops that increase carbon sequestration, require less water, reduce nitrogen loss, and improve landscape resiliency and adaptation.
	2.5.1.3 Identify opportunities for farmers and landowners to participate in ecosystem services markets (e.g., for carbon removal, flood protection, and water quality) that incentivize best management practices for climate mitigation and adaptation.
	2.5.1.4 Support development, production, and use of low-greenhouse-gas farm inputs such as fertilizers, chemicals, and other products.
	2.5.1.5 Promote agricultural feedstocks for sustainable aviation fuel.
	2.5.1.6 Invest in new markets and supply chains for small grains, legumes, and other alternative grains grown in Minnesota.
2.5.2 Promote the use of wood products and residual forest products to store carbon and reduce GHG emissions	2.5.2.1 Enhance markets for existing long-lived wood products that increase carbon storage and replace more fossil-fuel-intensive materials.
	2.5.2.2 Stimulate markets for emerging forest products — such as engineered wood, biochemicals, biofuels, and environmental remediation products — that can reduce greenhouse gas emissions by providing a low-carbon alternative to fossil-fuel-intensive products.
	2.5.2.3 Incentivize beneficial uses of waste wood and wood residuals (e.g., waste wood generated from insects and disease, harvest residuals, and sawdust) to diversify forest products markets and reduce the need for energy from other sources.
	2.5.2.4 Increase competitiveness of lower-value wood products that are generated from thinning and other climate adaptation management practices.
	2.5.2.5 Launch consumer education campaigns to tell the story of Minnesota's harvested wood products and their role in meeting the state's climate mitigation and adaptation goals.
2.5.3 Support local food markets, urban agriculture, and emerging farmers	2.5.3.1 Promote tribal, local, and community-based agriculture to promote economic vitality and increase healthy, fresh food access, especially in underserved communities.
	2.5.3.2 Continue and expand the Emerging Farmer Program and similar programs for farmers and agricultural/food entrepreneurs, with particular attention to advancing inclusion and equity.
	2.5.3.3 Explore and promote greenhouse gas emissions reductions in tribal and local food systems.
2.5.4 Reduce waste and promote beneficial use of food and organic materials	2.5.4.1 Increase organics recycling through support of programs and infrastructure and promotion of organics recycling end-products for soil amendments, energy, and other beneficial uses.
	2.5.4.2 Incentivize and reduce barriers for local and regional food donation, food rescue, food-to-animal programs, and related efforts that prevent food waste and manage food scraps.
	2.5.4.3 Support local governments with guidance and resources to conduct public education campaigns such as prevention of wasted food and zero waste challenges.

GOAL 3 – Resilient communities

Ensure all Minnesota communities are prepared for, can respond to, and recover from climate impacts and extreme weather.

Initiative 3.1: Climate-smart communities

Build Minnesota communities' capacity to protect against and withstand the effects of climate change

Sub-initiative	State action steps
3.1.1 Support communities in the development of climate resilience plans	3.1.1.1 Provide training and tools to identify climate risks and prioritize actions to build resiliency for local and Tribal governments.
	3.1.1.2 Develop and expand individualized climate resilience guidance to communities.
	3.1.1.3 Create and maintain an interactive, comprehensive website that improves centralized access to up-to-date climate resilience planning information, data, and funding opportunities.
	3.1.1.4 Increase peer learning about resilience best practices through the GreenStep Cities and Gold Leaf Challenge programs and expand pilot programs for Tribal Nations, schools, counties, and townships.
	3.1.1.5 Coordinate with partners, including the Minnesota Climate Adaptation Partnership, to promote climate resilience planning training and tools, including climate modeling data tools such as CliMAT.
	3.1.1.6 Provide education resources for communities to improve public understanding of local climate impacts and adaptation actions.
	3.1.1.7 Develop and implement community-level resilience metrics that identify baselines, set clear objectives, and evaluate capacity, scalability, and cost-effectiveness.
3.1.2 Fund planning and implementation for community and statewide resilience through multiple sources	3.1.2.1 Establish dedicated funding for local climate resiliency capacity, assessments, planning, implementation, maintenance, data monitoring, and analysis.
	3.1.2.2 Explore opportunities for long-term, dedicated sources of state funding to support local, regional, Tribal, and statewide resilience priorities.
	3.1.2.3 Expand public/private financing and philanthropic opportunities, such as revolving loan funds, for climate resilience and adaptation planning and implementation.
	3.1.2.4 Provide climate resilience programs, including for climate planning and implementation, climate-ready schools, community forestry resilience, and expanding local and regional staff capacity and expertise.
	3.1.2.5 Increase financial assistance for local and regional disaster preparedness, response, and recovery.
3.1.3 Integrate climate resilience into local, regional, and state planning	3.1.3.1 Encourage counties to integrate adaptation strategies into county hazards mitigation plans, using Minnesota's state hazard mitigation plan as a guide.
	3.1.3.2 Encourage all communities to have a preparedness plan for extreme weather events, including contingencies for multiple events.
	3.1.3.3 Use high-resolution, dynamically downscaled climate projections to inform planning and design efforts across Minnesota.
	3.1.3.4 Develop local and statewide maps to improve understanding of climate risks and vulnerabilities.

Initiative 3.2: Healthy community green spaces and water resources

Expand and protect tree canopies; parks and other green spaces; and lakes, rivers, and wetlands that provide multiple community resilience benefits.

Sub-initiative	State action steps
3.2.1 Advance community forestry	3.2.1.1 Encourage preservation of mature trees through heritage tree preservation and management policies and programs on public and private lands.
	3.2.1.2 Support the management of emerald ash borer and other emerging plant pests and diseases in communities through treatment, removal and replacement, proper disposal, and financial assistance.
	3.2.1.3 Assess community tree canopy cover and other tree baseline data across the state to help communities track and measure tree canopy goals.
	3.2.1.4 Promote tree inventory data tools for communities, including Tree Equity Score, Metropolitan Council's Growing Shade tool, USFS "Tree Canopy" tool, and the University of Minnesota's Land Cover and Urban Tree Canopy tools.
	3.2.1.5 Increase community tree canopy coverage through plantings, increased capacity for tree care and forestry, and tree care education, job training, and community-led planning and decision-making.
	3.2.1.6 Grow and maintain climate-adaptive shade trees in communities.
	3.2.1.7 Prioritize community forestry actions in disproportionately impacted communities that decrease building energy use, mitigate heat islands, and replace pest-infected or diseased trees.
3.2.2. Plant beneficial vegetation on public and private green spaces to promote climate resiliency and adaptation	3.2.2.1 Provide education, technical assistance and funding to establish climate resilient plantings including pollinator gardens, prairies, woodlands, shoreline plantings, lawn alternatives, and community agriculture in parks, community gardens, schools, and other public spaces.
	3.2.2.2 Support the efforts of Minnesota residents with an emphasis on engaging the next generation of stewards through education, technical assistance and funding to establish native vegetation in yards, shorelines, and naturalized areas to support pollinators, sequester carbon and increase climate resilience.
	3.2.2.3 Promote incorporation of native vegetation as part of ground-mounted solar development to support pollinators and biodiversity.
	3.2.2.4 Increase the management of invasive species within communities to increase the resilience of ecosystems and native species and provide habitat and water quality benefits.
3.2.3. Protect and improve water quality and manage water quantity to support community resilience	3.2.3.1 Protect and increase water storage in community spaces to reduce downstream flooding, improve water quality, and retain water during seasonal droughts.
	3.2.3.2 Improve water quality in communities through watershed-scale planning and targeting of priority areas.
	3.2.3.3 Protect and restore natural shorelands and riparian corridors by updating state and local regulations, increasing technical assistance, and strengthening state-local partnerships.

Initiative 3.3: Resilient infrastructure

Increase climate resilience in the built environment

Sub-initiative	State action steps
3.3.1. Assess climate vulnerabilities of public facilities and infrastructure, giving priority to essential and critical assets.	3.3.1.1 Identify locations subject to localized and large-scale flooding by accelerating updates to flood data and maps statewide using LiDAR and improved forecasting.
	3.3.1.2 Assess civil infrastructure vulnerability using mapping tools and update the Minnesota Infrastructure Stress Transparency Tool.
	3.3.1.3 Prioritize infrastructure improvements and maintenance that enhance resilience.
3.3.2. Modify programs and regulations to address climate impacts and encourage adaptation over time	3.3.2.1 Develop and incorporate policies and provisions in construction and remodeling codes that prioritize resilient design standards and other best practices to adapt critical facilities and infrastructure.
	3.3.2.2 Engage communities in the development of design standards and guidance for resilience hubs that consider the site and location and include independent power capability, air cooling, provisions, and other community-specific needs.
	3.3.2.3 Update the state floodplain management rules for critical facilities, mitigating risk in areas beyond currently mapped floodplain areas, and encouraging no net loss of floodplain storage in response to projected climate conditions.
	3.3.2.4 Develop guidance, model ordinances, and technical support to ensure that local government units adopt, administer, and enforce the most recent floodplain management ordinances.
	3.3.2.5 Adopt updated MN Rule 1335 to replace adoption of 1972 floodproofing rules by reference to ASCE 24 and encourage local adoption of floodproofing rules that meet or surpass minimum requirements of the most recent national standards (ASCE 24-24 Flood Resistant Design and Construction).
	3.3.2.6 Develop and incorporate design standards and guidance to reduce wildfire risk in the wildland-urban interface of rural forested communities.
3.3.3. Increase the resilience of existing infrastructure and redevelopment	3.3.3.1 Design and build local transportation infrastructure to manage stormwater and to improve long-term flood resiliency, including promoting natural flow distribution and aquatic organism passage.
	3.3.3.2 Avoid siting state, public, and critical facilities and services in high-risk areas, use nature-based solutions, and incorporate resilient design.
	3.3.3.3 Encourage the implementation of resilient energy systems such as neighborhood-scale microgrids to keep electricity flowing during an outage and thermal energy networks for heating and cooling.
3.3.4 Expand stormwater system capacity and green infrastructure to prevent flooding	3.3.4.1 Provide funding and technical assistance to establish nature-based solutions and other stormwater capacity systems in communities to protect buildings and infrastructure in flood-prone areas.
	3.3.4.2 Increase incentives for the use of green stormwater infrastructure practices in developments within state stormwater permitting and financial assistance programs.
	3.3.4.3 Promote water storage and reuse into stormwater management to hold or distribute water during and after large rain events, including restoring wetlands to support water storage in flood-prone areas, to protect buildings and infrastructure and support watershed health.

Sub-initiative	State action steps
3.3.5 Mitigate excessive heat and implement actions that help communities adapt	3.3.5.1 Provide funding and technical assistance to help communities mitigate excessive heat and reduce their heat islands, prioritizing disproportionately impacted communities based on temperature data, health data, and social determinants of health.
	3.3.5.2 Develop new and improve existing cooling centers in preparation of extreme heat.
3.3.6. Advance sustainable land use and new development that incorporates resilience	3.3.6.1 Provide technical assistance and funding for local and regional economic development and community energy transition to help communities and small businesses adapt to climate change impacts and transition their services (e.g., tourism, sports, recreation).
	3.3.6.2 Ensure that community infrastructure and services are powered and maintained to withstand climate- and weather-related impacts.
	3.3.6.3 Incentivize dense infill development in communities, including clean-up and beneficial reuse of brownfields, to efficiently use land, decrease sprawl, and reduce travel distances to goods and services.
	3.3.6.4 Encourage the implementation neighborhood-scale thermal energy networks for efficient heating and cooling.

GOAL 4 – Clean energy and electricity

Expand the use of carbon-free energy sources

Initiative 4.1: Grid adaptation and enhancement

Promote electrical grid and transmission upgrades to enable greater reliability and renewable energy access

Sub-initiative	State action steps
4.1.1 Upgrade transmission and distribution infrastructure and deploy grid-enhancing technologies	4.1.1.1 Accelerate the use of grid-enhancing technologies and smart-grid enhancements that improve capacity, efficiency, and reliability of existing electricity transmission lines.
	4.1.1.2 Establish flexible interconnection solutions to accelerate small-scale energy generation and storage connections to the electric grid.
	4.1.1.3 Advance research and development to integrate carbon-free and distributed energy resources via state funding.
4.1.2 Deploy existing and innovative utility-scale storage technologies	4.1.2.1 Support the deployment of clean, dispatchable energy storage that ensures power is always available.
4.1.3 Advance distributed generation and storage	4.1.3.1 Support clean distributed generation and storage projects that are construction-ready and are readily able to be aggregated and utilized (e.g., virtual power plants).

Initiative 4.2: Clean energy sources

Accelerate deployment of carbon-free energy

Sub-initiative	State action steps
4.2.1 Transition to 100% carbon-free electricity and build community and Tribal acceptance	4.2.1.1 Implement Minnesota Energy Infrastructure Permitting Act to accelerate siting, permitting, and deployment of clean energy.
	4.2.1.2 Proactively engage the public on proposed large-scale energy infrastructure projects.
	4.2.1.3 Explore community and Tribal incentives that can build acceptance for energy projects, such as federal energy production tax credits and community investment shares.
	4.2.1.4 Standardize decommissioning requirements for energy infrastructure.
4.2.2 Accelerate the growth of large-scale clean energy generation	4.2.2.1 Implement the 100% carbon-free electricity by 2040 law considering existing and emerging technologies, the need for programmatic support, and barriers to scalability or adoption.
	4.2.2.2 Evaluate resource adequacy for new energy users locating in Minnesota.
4.2.3 Strategically repurpose energy generation facilities and associated grid interconnections	4.2.3.1 Through compliance with the 100% carbon-free electricity by 2040 law, continue expanding advocacy at regional and national authorities and organizations (FERC, MISO, SPP, OMS, etc.).

Initiative 4.3: Dispatchable clean energy and storage

Develop and deploy clean generation and long-duration storage technologies that balance supply and demand

Sub-initiative	State action steps
4.3.1 Advance research and development for long-duration storage and dispatchable clean generation	4.3.1.1 Fund research and development on long-duration storage opportunities, including monetization mechanisms.
4.3.2 Support full deployment of long-duration storage and dispatchable clean generation	4.3.2.1 Support demonstrations and pilots of long-duration storage and dispatchable clean generation.
	4.3.2.2 Identify opportunities, including market enhancements, to scale up and fully deploy clean generation and storage technologies.
	4.3.2.3 Support the deployment of long duration storage.

Goal 5 – Healthy lives and communities

Protect health and advance equity in a changing climate

Initiative 5.1: Cooler, safer communities

Keep people and places protected from extreme heat's harmful effects

Sub-initiative	State action steps
5.1.1 Make heat-safe housing more affordable and easier to access	5.1.1.1 Strengthen renter home-cooling protections using incentives and policies.
	5.1.1.2 Ensure more people can afford home cooling by strengthening energy assistance and utility affordability programs.
	5.1.1.3 Work with government and community partners to find obstacles to home weatherization programs and share information suited to different groups.
5.1.2 Advance heat-resilient community design	5.1.2.1 Refine educational resources, provide technical assistance, and deliver trainings for local public health and Tribal health departments to support heat resilience in communities.
	5.1.2.2 Coordinate across agencies to provide climate resilience, heat adaptation, and public health programs and support to communities.
5.1.3 Make workplaces safer by strengthening heat safety protection for indoor and outdoor workers	5.1.3.1 Track heat-related health effects and gather insights from workers and partners to understand how heat impacts outdoor jobs.
	5.1.3.2 Create clear guidelines to help workplaces protect workers from unsafe heat exposure.
	5.1.3.3 Explore creating policies to keep outdoor worker safe during extreme heat.
5.1.4 Make schools and childcare centers safer from extreme heat	5.1.4.1 Develop and share heat-safety guidelines for school and childcare centers, and study options for updating standards.
	5.1.4.2 Help agencies and partners make schools and childcare centers more climate-resilient by improving infrastructure and adding health protections for extreme heat and poor air quality.
5.1.5 Make group homes, care facilities, and prisons safer from extreme heat	5.1.5.1 Work together across agencies to make residential facilities more climate-resilient by improving infrastructure and adding health protections for extreme heat and poor air quality.
5.1.6 Advance planning, research, and information sharing for an effective extreme heat response informed by public health data and community input	5.1.6.1 Create a Minnesota Heat Roadmap with research on extreme heat, action steps, and timeline for planning.
	5.1.6.2 Make heat-related symptoms tracking data easier to understand and use and share findings with local public health and Tribal health.
	5.1.6.3 Update and share heat safety communications materials to improve public awareness and help partners understand health risks.
	5.1.6.4 Study how extreme heat affects negative behaviors in Minnesota to better inform prevention strategies and community support efforts.

Initiative 5.2: Clean air

Protect Minnesotans from poor air quality due to pollution and wildfire smoke

Sub-initiative	State action steps
5.2.1 Share guidance to protect people from poor air quality in their homes, communities, and workplaces	5.2.1.1 Keep sharing guidance for outdoor workers, recreational users, and high-risk groups while exploring ways to work with decisionmakers to ensure indoor air safety during poor air quality days.
	5.2.1.2 Collaborate with agencies and other groups to ensure clear, accessible messaging for all communities.
5.2.2 Strengthen understanding of health impacts of poor air quality and increase use of data tools	5.2.2.1 Enhance and expand the statewide system for tracking health symptoms during poor air quality.
	5.2.2.2 Make air quality and health impact tracking easier to understand by improving data visuals, sharing information with Emergency Medical Services, and using data to identify at-risk communities and focus prevention efforts where needed.
5.2.3 Make it easier for agencies and sectors to work together on air and health initiatives	5.2.3.1 Strengthen interagency collaboration between the Minnesota Air and Health Initiative and wildfire response, home weatherization programs, asthma services, and transportation.
	5.2.3.2 Expand efforts to help local public health and Tribal health departments provide home-based asthma care and education for families.

Initiative 5.3: Safe water

Ensure Minnesotans have reliable access to clean drinking water

Sub-initiative	State action steps
5.3.1 Improve flood planning and backup systems to keep public drinking water safe during and after floods or wildfires	5.3.1.1 Create a grant program to set up backup wells and emergency power for public drinking water.
	5.3.1.2 Help reduce flood risks to public drinking water by offering technical assistance.
5.3.2 Expand support and testing for private well users so that their drinking water is safe during and after floods or wildfires	5.3.2.1 Keep providing support to help private well users protect their water before, during, and after floods, droughts, and wildfires.
	5.3.2.2 Expand access to test kits for private well users following flooding events or wildfires.

Initiative 5.4: Community care

Strengthen social connection, mental health, food security, and access to nature amid climate change

Sub-initiative	State action steps
5.4.1 Provide culturally appropriate behavioral health care services and resources after climate-related disasters or emergencies	5.4.1.1 Maintain disaster behavioral health care services, such as Psychological First Aid training, and improve reach, cultural relevance, and continuity of mental health services.
	5.4.1.2 Maintain the Behavioral Health Medical Reserve Corp and boost volunteer recruitment and retention.
5.4.2 Help people cope with and recover from the mental, emotional, and social challenges caused by climate change and related issues	5.4.2.1 Provide updated resources for the public on the Minnesota Department of Health wellbeing and climate change webpage while increasing awareness and accessibility, including translated materials.
	5.4.2.2 Expand access to nature to support mental health and wellbeing through outdoor activities and education for all ages.
	5.4.2.3 Assess the impact of climate change on mental health and well-being, informing awareness, investment, and community capacity-building.
5.4.3 Strengthen social cohesion to ensure that communities are connected, supported, and equipped to withstand climate-related challenges	5.4.3.1 Expand community access to essential services and climate resilience hubs while strengthening coordinated messaging.
	5.4.3.2 Conduct a social cohesion and resource utilization assessment to address gaps in social connection and resource utilization across the State.
5.4.4 Preserve culturally significant places and adapt outdoor recreation and public lands amid climate change	5.4.4.1 Partner with communities and Tribal Nations to support and co-develop research projects and share knowledge to address the impacts of changing ecosystems on mental health and well-being.
	5.4.4.2 Adapt outdoor recreation on public lands for a changing climate and to serve changing demographics.
	5.4.4.3 Ensure public lands are managed in a way that restores or conserves healthy ecosystems, while balancing the needs of communities to interact with healthy landscapes.
	5.4.4.4 Protect and restore outdoor recreation areas from the impacts of extreme weather impacts in collaboration with outdoor recreational stakeholders and partners.
	5.4.4.5 Collaborate with Tribal Nations, diverse communities, and other organizations to identify and protect culturally significant places and resources.
5.4.5 Reduce food insecurity by increasing access to local, healthy, and culturally appropriate foods	5.4.5.1 Strengthen public health systems to ensure equitable access to nutritious foods and essential resources during climate crises.
	5.4.5.2 Advance understanding of climate-related impacts on food security, including for local fishing communities and Tribal Nations.
	5.4.5.3 Expand support for local organizations and governments to address food security and increase access to local, healthy, and culturally appropriate foods.
	5.4.5.4 Protect people from exposure to toxic metals in food, soil, and water caused by climate pollution and climate change impacts.

Initiative 5.5: Climate-smart public health

Strengthen capacity, communications, and preparedness to protect health amid climate change

Sub-initiative	State action steps
5.5.1 Increase understanding of how climate change impacts health and who is most at risk	5.5.1.1 Strengthen and expand climate-related data tracking to improve public health planning, emergency preparedness, and health equity analysis.
	5.5.1.2 Monitor patterns in vectorborne and other infectious diseases to detect climate-related change and protect communities from emerging disease.
5.5.2 Communicate the health impacts of climate change through stories, data, and collaboration between governments, community organizations, medical professionals, local leaders, and other trusted messengers	5.5.2.1 Develop a clear, accessible climate and health communications plan that connects communities with important data and stories.
	5.5.2.2 Strengthen cross-sector collaboration to improve coordination, resource-sharing, and data-driven decision-making between governments, community organizations, medical professionals, local leaders, and other trusted messengers, integrating climate and health data to enhance resilience.
	5.5.2.3 Equip local public health and Tribal health with training and emergency response tools to improve climate preparedness.
	5.5.2.4 Increase education and outreach to help people stay safe outdoors from ticks, mosquitos, and other climate-related disease risks.
5.5.3 Strengthen capacity of state, local, and Tribal public health agencies to reduce climate-related health risks	5.5.3.1 Strengthen public health capacity through education, collaboration, and data-sharing to help state, local, and Tribal agencies address climate-related health risks.
	5.5.3.2 Increase support for local action that reaches populations vulnerable to climate-related health impacts.
	5.5.3.3 Integrate climate change considerations into emergency response planning and drills to improve emergency preparedness.

Initiative 5.6: Strategic climate and health action

Advance equity, resilience, and justice for Minnesotans

Sub-initiative	State action steps
5.6.1 Create systems for collaboration between community advocates and public leadership so that community concerns and solutions directly inform climate policies and programs	5.6.1.1 Explore building a Minnesota Climate Action Network to connect residents, organizations, and governments, making it easier to share information and resources for climate action and improve coordination.
5.6.2 Evaluate existing programs to improve alignment with climate resilience and health equity goals and avoid investments that worsen climate and health outcomes	5.6.2.1 Assess how state-funded programs contribute to climate and community resilience and align with climate and health goals.
	5.6.2.2 Develop recommendations to improve state program alignment with climate and health goals, including addressing barriers to access for communities overburdened by climate change impacts.
	5.6.2.3 Develop a grant template and training to support state program directors and grant staff – whether directly focused on climate resilience or not – to consider potential impact on community and environmental resilience and improve climate resilience efforts.
	5.6.2.4 Launch a pilot program to proactively align existing grant programs to accelerate climate resilience efforts.
5.6.3 Prioritize communities facing disproportionate climate impacts when distributing funds and resources and address barriers to access	5.6.3.1 Create a strategy to ensure that 40% of state climate funds benefit communities facing disproportionate climate impacts.
	5.6.3.2 Develop a strategy to track and report state climate funds.
5.6.4 Assess existing climate action and sustainability initiatives to incorporate climate and health priorities	5.6.4.1 Maintain a cross-agency team to integrate health equity into climate action, ensuring collaboration, clear communication, and effective policy implementation.
	5.6.4.2 Analyze how health, equity, climate adaptation, and housing costs – including insurance – impact communities in Minnesota.

Goal 6 – Clean economy

Build a thriving carbon-neutral economy that produces goods and services with environmental benefits and equitably provides family-sustaining job opportunities

Initiative 6.1: Clean, sustainable, and resilient industrial businesses

Reduce emissions by helping businesses adopt technologies and strategies that benefit them, Minnesotans, and the environment

Sub-initiative	State action steps
6.1.1 Incentivize industrial businesses to adopt low-carbon technologies and strategies with support available to businesses of all sizes and in all communities	6.1.1.1 Help industrial businesses invest in clean technologies and strategies by using existing financial incentives under the Energy Conservation Optimization Act and the Natural Gas Innovation Act, Minnesota Climate Finance Innovation Authority, and by creating new programs such as low-interest loans, rebates, grants, and tax credits.
	6.1.1.2 Support and grow industries that make low-carbon products through the Buy Clean and Buy Fair Minnesota Act and by encouraging other public and private organizations to adopt similar policies.
	6.1.1.3 Support cross-sector approaches to reduce emissions and waste, like integrating waste heat from industrial and other facilities into district energy systems that heat or cool nearby buildings, by encouraging collaboration and offering incentives so businesses and households benefit.
	6.1.1.4 Ensure businesses of all sizes and in all communities, especially those historically excluded, can access support for clean technology adoption through programs like the Minnesota Climate Finance Innovation Authority and new initiatives.
6.1.2 Explore policies that support flexible adoption of low-carbon technologies and strategies by businesses, while helping meet statewide emissions goals	6.1.2.1 Ensure Minnesota's policies and programs cut supply chain emissions by building more clean production and sourcing within the state, not shifting pollution elsewhere.
	6.1.2.2 Explore clean heat policies that give businesses flexible options to switch to low-emission heating, such as heat pumps, renewable natural gas, and geothermal.
	6.1.2.3 Explore policies that give businesses flexible, cost-effective ways to reduce emissions, while supporting innovation, investment, and growth opportunities.
	6.1.2.4 Explore ways to track, report, and verify emissions with tools and guidance that are easy to use and transparent for businesses and agencies.
6.1.3 Support businesses' access to clean technologies and strategies through outreach and technical assistance, delivered in partnership with regional governments, universities, community organizations, and others	6.1.3.1 Ensure outreach and technical assistance are accessible to businesses of all sizes, including those owned by women, people of color, veterans, people with disabilities, and others who have been excluded from opportunities in the past.
	6.1.3.2 Maintain and expand programs that help businesses identify the best ways to reduce costs while benefiting the environment like the Minnesota Technical Assistance Program, Minnesota Retiree Environmental Technical Assistance Program, Clean Energy Resource Teams, and Energy Smart.
	6.1.3.3 Work with regional partners and businesses to identify and pursue clean economy opportunities that support growth, address regional needs, and help meet the state's emissions reduction goals.
	6.1.3.4 Grow the supply of and demand for clean products in Minnesota through partnerships like the Bioeconomy Coalition of Minnesota, giving local businesses an early advantage in national and international markets.

Initiative 6.2: Clean fuel and clean technology innovation

Create pathways to develop, test, and deploy affordable and scalable technologies that reduce emissions from industrial processes

Sub-initiative	State action steps
6.2.1 Encourage technologies that help businesses improve energy efficiency and switch to electricity where possible	6.2.1.1 Expand new and existing clean energy businesses and technologies through partnerships like Minnesota Energy Alley and with continued funding for demonstration and other early-stage clean technology projects.
	6.2.1.2 Evaluate current thermal energy projects, such as those funded by Geothermal Planning Grants, for growth opportunities, and continue supporting research into new methods and applications.
	6.2.1.3 Monitor developing technologies that could make electricity generation cheaper and easier to scale, and consider them for future feasibility studies, such as advanced nuclear technology that improves efficiency and safety.
6.2.2 Advance cost-effective, scalable clean fuel technologies that reduce emissions across the full lifecycle, not just when fuels are used	6.2.2.1 Support low-carbon fuels made in Minnesota or with Minnesota products, such as wood waste, winter oilseeds, clean hydrogen, solid waste, and captured carbon, through existing policies like tax credits, production payments, and blending standards, and creation of new programs to increase production in Minnesota.
	6.2.2.2 Support new and existing renewable natural gas projects from diverse producers and feedstocks through production incentives and infrastructure development funding, making gas available for electricity, transportation, heating and industrial use.
	6.2.2.3 Support existing clean hydrogen projects and programs like the St. Cloud Green Hydrogen Project, CenterPoint Energy's pilot, the Heartland Hydrogen Hub, and Duluth's green iron facility, and identify new opportunities through research grants, such as transportation and industrial uses.
6.2.3 Encourage the development and use of carbon capture, storage, and utilization technologies, focusing on methods that are cost-effective, store carbon for long periods, and are not used to support activities that increase overall emissions	6.2.3.1 Explore policy approaches to define, track, and incentivize a wide range of carbon sequestration methods, including biological, geological, and utilization, and build public understanding of carbon sequestration's role in meeting emissions reduction goals.
	6.2.3.2 Learn from current geological carbon storage projects in Minnesota, such as the Tamarack carbon mineralization pilot, and explore regulations that would support future demonstration and deployment.
	6.2.3.3 Encourage carbon storage in natural and working lands through existing and expanded education, land management programs, and policy or financial support, including long-term storage in wood products.
	6.2.3.4 Build partnerships and assess new ways to support and incentivize research, testing, and market development of technologies and systems needed to turn captured carbon into useful products that store carbon long-term using affordable, scalable methods.

Initiative 6.3: Strong circular economy

Reduce emissions and waste through reuse, repair, recycling, and decreasing demand for new materials

Sub-initiative	State action steps
6.3.1 Reduce waste from homes, businesses, and industry by focusing on prevention and reuse	6.3.1.1 Support reuse, rental, sharing, and repair services and spaces by supporting community programs, offering grants, training repair technicians, and investing in business and workforce development efforts.
	6.3.1.2 Encourage people to buy reused and repaired goods through public campaigns, consumer marketing, and education about right-to-repair laws.
	6.3.1.3 Prevent food waste from businesses and organizations that throw away large quantities of food by offering incentives for food donation and rescue, providing technical assistance to improve food management practices, and requiring annual tracking and reporting.
	6.3.1.4 Support households in reducing food waste by promoting meal planning, smart shopping, proper food storage, and increased understanding of food date labels.
	6.3.1.5 Help businesses, governments, and organizations switch from single-use food and beverage containers and utensils to reusable ones through incentives, grants, rebates, and government purchasing policies.
	6.3.1.6 Prevent wood and material waste by offering incentives for tree care, building maintenance, and building material reuse.
6.3.2 Increase recycling at homes, businesses, and industrial sites, and promote the use of recycled materials	6.3.2.1 Increase recycling by educating the public, making recycling convenient, offering financial incentives, improving processing systems, and implementing Extended Producer Responsibility policies.
	6.3.2.2 Strengthen markets for recycled materials by offering incentives, providing business development assistance, improving communication, and updating government procurement policies, for example using compost for public construction and landscaping projects, incentivizing use of waste wood, and creating systems to capture and process new and difficult-to-recycle materials.
	6.3.2.3 Increase organics recycling, including composting, anaerobic digestion, and feeding food scraps to livestock, by adding new facilities, improving curbside and drop-off collection options, raising public awareness, and creating incentives and requirements for businesses.
6.3.3 Reduce greenhouse gas emissions from waste systems and encourage capturing emissions for use as a renewable energy source	6.3.3.1 Improve energy and material efficiency in waste and wastewater collection and processing, using strategies such as streamlining collection routes and timing, requiring pre-processing of waste, and using waste heat.
	6.3.3.2 Establish methane emissions rules and incentivize methane capture from waste systems including landfills, wastewater treatment processes, and agricultural waste to produce clean energy.

Initiative 6.4: Resilient and equitable clean economy workforce

Prepare workers for new, existing, and changing career opportunities and create high-quality, accessible clean economy jobs

Sub-initiative	State action steps
6.4.1 Support workers and communities that depended on climate-vulnerable or carbon-intensive industries	6.4.1.1 Help workers in climate-vulnerable or carbon-intensive industries whose jobs are shrinking or disappearing transition to in-demand careers through efforts like the Dislocated Worker Program, Adult Career Pathways, and others.
	6.4.1.2 Develop and promote clear education and career pathways for clean economy jobs.
6.4.2 Develop and promote clear education and career pathways for clean economy jobs	6.4.2.1 Using a broad, inclusive definition of clean jobs, create and implement a statewide plan to grow clean jobs at new and existing businesses, which includes identifying growing or at-risk industries, regional needs, employer needs, relevant training programs, and who has access.
	6.4.2.2 Work with businesses, labor groups, including unions, nonprofits, and education institutions to create and support inclusive workforce strategies that help new and existing workers prepare for today's changing jobs and technologies, such as Registered Apprenticeship Programs, Minnesota Job Skills Partnership grants, and dual training pipeline.
	6.4.2.3 Help youth prepare for and access clean economy careers by expanding school and community STEM programs, continually aligning Career and Technical Education programs with industry needs, raising awareness of these careers, and continuing support for programs like the Minnesota Youth Program and Youthbuild.
	6.4.2.4 Share clean economy career pathway information with people from diverse backgrounds, including students, job seekers, professional associations, community-based organizations, and organizations that help people find work.
6.4.3 Work with employers to create high-quality clean economy jobs that are accessible to all	6.4.3.1 Help employers meet their workforce needs with a diverse set of workers through programs such as Adult Career Pathways, Adult Basic Education, pre-apprenticeships and Registered Apprenticeship Programs, as well as programs through community-based organizations.
	6.4.3.2 Share best practices for reaching more diverse talent pools with employers and explain why it matters, especially in industries where many of workers will retire in the next few years.
	6.4.3.3 Promote job quality in the clean economy – fair pay, benefits, safe working conditions, and opportunities for growth – by showing employers how job quality benefits businesses, linking funding opportunities to job quality, and supporting jobs most exposed to environmental risks.
	6.4.3.4 Strengthen the connection between economic and workforce development efforts through better coordination across state agencies and with regional and local partners in order to support businesses.
6.4.4 Remove barriers to education and job opportunities to grow the clean economy workforce	6.4.4.1 Support communities that have faced environmental and economic inequities through workforce and community programs such as Building Strong Communities, Powerup, and pre- and registered-apprenticeships, and by supporting local, community-led workforce efforts.
	6.4.4.2 Partner with employers, trade associations, labor groups, including unions, nonprofits, workforce boards, and education and training institutions to find and share effective ways to help overlooked workers overcome barriers like lack of transportation or childcare, and to implement solutions such as mentoring, career guidance, learning on the job, and support services to help people succeed at work.

Goal 7 – Efficient and resilient buildings

Build and maintain healthy, comfortable, safe, efficient, and resilient buildings and homes that are cheaper to operate, pollute very little and support grid stability

Initiative 7.1: Decarbonized residential and commercial buildings:

Reduce energy use, carbon emissions, and embodied carbon in buildings and building materials

Sub-initiative	State action steps
7.1.1 Increase energy efficiency in buildings	7.1.1.1 Estimate emissions reductions resulting from energy efficiency programs such as the Energy Conservation Optimization Act and the Natural Gas Innovation Act.
	7.1.1.2 Leverage, consolidate, and streamline programs such as energy assistance, pre-weatherization, weatherization, and utility efficiency programs to make them easier to access, navigate, and scale up.
	7.1.1.3 Leverage existing sustainability programs such as Energy Star, LEED, WELL, Green Communities, and others, which contribute to market demand for carbon-free living and work environments.
	7.1.1.4 Ensure that programs, such as utility energy audit programs, are equitably available across the state regardless of fuel type.
	7.1.1.5 Expand energy benchmarking and other assessment tools for all building types that compare existing performance to target standards to help homeowners and building owners analyze their existing building energy usage and identify best-practice next steps to increase efficiency.
	7.1.1.6 Promote real-time monitoring of building or tenant space energy consumption to facilitate energy consumption reduction and provide immediate feedback to the owner.
	7.1.1.7 Provide education and technical assistance on building energy improvements and energy efficiency, such as grant writing, best practices, and first steps, to owners, developers, design professionals, and the construction workforce.
	7.1.1.8 Target energy efficiency incentives to energy-intensive use types such as health care systems, data centers, cold storage facilities, food serves, and food sales.
	7.1.1.9 Develop financial incentives, including utility rate designs, to support demand response and smart building systems.
	7.1.1.10 Support opportunities for additional financial incentives including loans and rebates for homes, businesses, governments, healthcare systems, schools, and other buildings to increase energy efficiency and reduce energy use.
	7.1.1.11 Research and implement a Building Performance Standard and ensure alignment with building codes.
	7.1.1.12 Update regulatory requirements, including adopting building and energy codes to increase energy efficiency in buildings, including incrementally increasing the Minnesota Commercial Energy Code, Minnesota Residential Energy Code, and regularly adopting updated ASHRAE 90.1 and the International Energy Conservation Code.
	7.1.1.13 Develop statutory criteria to enforce the Minnesota Energy Codes if local municipalities have not adopted the State Building Code for local enforcement as is currently done for the Minnesota Accessibility Code.

Sub-initiative	State action steps
7.1.2 Lower energy use through water conservation in buildings	7.1.2.1 Study and develop new requirements for gray water treatment and use in homes based on scientific data and global best practices.
	7.1.2.2 Communicate the benefits of water conservation best practices to build stakeholder awareness and drive market response.
	7.1.2.3 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support water conservation and use of non-potable water in buildings.
	7.1.2.4 Develop financial incentives to support water conservation and use of non-potable water in buildings.
	7.1.2.5 Update building and energy codes to support water conservation and use of non-potable water in buildings.
7.1.3 Electrify buildings for decarbonization	7.1.3.1 Research and develop very low temperature heat pumps and systems.
	7.1.3.2 Develop and implement ultra-efficient thermal systems, leveraging ground and waste-heat sources and district energy networks.
	7.1.3.3 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support the electrification of buildings for decarbonization, including on heat pumps, fuel-switching, and “get ready” practices.
	7.1.3.4 Support and foster refrigeration technician education programs in high schools and community and technical colleges on heat pump technologies, very low temperature heat pump systems, and hybrid energy systems integration to ensure we have a workforce ready to maintain and proliferate net-zero building technologies stock.
	7.1.3.5 Implement a public recognition program for zero-carbon buildings.
	7.1.3.6 Develop financial incentives and rate designs to support the electrification of buildings for decarbonization, such as for very-low- temperature heat pumps and systems, net-zero emissions district energy systems, and deploying multiple approaches to cost reduction.
	7.1.3.7 Adopt building and energy codes to support the electrification of buildings for decarbonization, including regular updates of the Minnesota Building Code, Minnesota Commercial Energy Code, Minnesota Residential Energy Code.
7.1.4 Advance on-site renewable energy	7.1.4.1 Ensure state programs combine energy efficiency design with building siting and design of on-site renewable energy.
	7.1.4.2 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support the use of onsite renewable energy, including information about solar-ready design, building infrastructure and space requirements, and mapping tools.
	7.1.4.3 Support and foster electrical technician education programs in high schools and community and technical colleges including low voltage systems, solar systems, energy storage systems, and electrical systems integration controls to support electrification.
	7.1.4.4 Develop financial incentives, including rate designs, to support and incentivize the use of onsite renewable energy.
	7.1.4.5 Adopt building and energy codes to support onsite renewable energy, including incrementally increasing the Minnesota Commercial Energy Code, the Minnesota Residential Energy Code, adopting updated versions of ASHRAE 90.1 and International Energy Conservation Code.

Sub-initiative	State action steps
	7.1.4.6 Develop statewide planning and zoning statutory criteria to provide a basic framework facilitating sustainable development, solar-ready construction, on-site renewable energy, utilization of district energy, and on-site energy storage.
7.1.5 Reduce embodied carbon in buildings	7.1.5.1 Include embodied carbon criteria in state and local government procurement and contracting processes.
	7.1.5.2 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support the use of low-carbon construction materials.
	7.1.5.3 Offer financial incentives for construction projects to use low-carbon construction or renewable materials and products.
	7.1.5.4 Adopt building codes to support the use of low-carbon construction materials and products, such as, but not limited to, strawbale, hemp-crete, rammed earth, mycelium, and reused/recycled construction materials.

Initiative 7.2: Resilient residential and commercial buildings

Integrate innovative technologies, building materials, and design methods in buildings to withstand climate impacts

Sub-initiative	State action steps
7.2.1 Strengthen buildings against extreme weather and climate impacts	7.2.1.1 Enable the use of the Guaranteed Energy Savings Program for resilience to multiple climate perils.
	7.2.1.2 Incorporate climate impacts such as extreme heat into hazard mitigation planning for essential community buildings and residential buildings and homes.
	7.2.1.3 Provide education and technical assistance to owners, developers, property managers, design professionals, engineers, and the construction workforce to support the design, engineering, and construction and management of buildings that will be able to withstand extreme weather and climate impacts.
	7.2.1.4 Develop financial incentives to support the design and construction of buildings that will be able to withstand extreme weather and climate impacts.
	7.2.1.5 Adopt building codes to support the design and construction of commercial buildings and homes that will be able to withstand extreme weather and climate impacts, such as heat-safe roofing, flood mitigation systems, and weatherization to prevent exposure to extreme heat and air pollution.
7.2.2 Conserve water in buildings for resilience	7.2.2.1 Communicate the benefits of water conservation to build stakeholder awareness and drive market response.
	7.2.2.2 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support the design and construction of buildings that conserve water in buildings for resilience, such as education on best practices and cost effective first steps.
	7.2.2.3 Develop financial incentives to support the design and construction of buildings that conserve water in buildings for resilience.
	7.2.2.4 Adopt building and energy codes to support the design and construction of buildings that conserve water in buildings for resilience, such as point-source electric resistance heating and requiring buildings to collect and treat rainwater for use in irrigation and flushing toilets.
7.2.3 Electrify buildings so residents are resilient in the event of outages	7.2.3.1 Research and develop hybrid HVAC systems such as solar-assisted ground-source heat pumps.
	7.2.3.2 Communicate the benefits of building electrification technologies as well as ground-source heat- pump technologies to build stakeholder awareness and drive market response.
	7.2.3.3 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support the electrification of buildings for resilience, such as information on best practices and most cost-effective first steps.
	7.2.3.4 Develop financial incentives to support the electrification of buildings for resilience.
	7.2.3.5 Adopt building and energy codes to support the electrification of buildings for resilience (e.g., regularly adopting updated versions of ASHRAE 90.1 and IECC Residential).
7.2.4 Advance onsite renewable energy with storage for resilience to keep buildings powered in the event of larger outages	7.2.4.1 Research and develop minimum criteria for on-site energy production and energy storage by building use type.
	7.2.4.2 Research the two-way flow of electricity from battery storage and EVs when connected to the grid, including assessing technical viability and monetization of services.
	7.2.4.3 Communicate the benefits of onsite renewable energy production and energy storage technologies as well as ground-source heat pump technologies to build stakeholder awareness and drive market response.

Sub-initiative	State action steps
	7.2.4.4 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to support the use of onsite renewable energy with storage capabilities for resilience, such as information on storage-ready construction, general best practices, and cost-effective first steps.
	7.2.4.5 Support the use of onsite renewable energy with storage capabilities for resilience through the development of financial incentives, including rate designs, to optimize off-peak energy distribution and storage.
	7.2.4.6 Adopt building and energy codes to support onsite renewable energy with storage for resilience, such as requiring on-site energy storage to supply buildings for one day or requiring roof structures to be designed to support solar array installations of sufficient capacity to charge building energy storage systems.
7.2.5 Promote the use of healthy building materials	7.2.5.1 Use purchasing and procurement guidelines to require environmental product declaration (EPD) for building materials, including in state and local governments.
	7.2.5.2 Provide education and technical assistance to owners, developers, design professionals, and the construction workforce to make environmentally preferable selections (e.g. non-toxic, mold-resistant, and durable) for their building materials and products, including appliances such as furnaces, water heaters, and cooktops/ovens.
	7.2.5.3 Develop financial incentives to support the design, construction, and ongoing use of healthy building materials, and green chemicals, and products in homes, businesses and the healthcare sector.
	7.2.5.4 Adopt building and energy codes to support the design and construction of buildings that use healthy building materials and products and provide protection to vulnerable populations from climate hazards such as extreme heat.
	7.2.5.5 Support flexibility in codes for developing new system designs that have sustainable and wellness co-benefits, such as canvas ducts that provide significant noise reduction or standards for effective daylighting of buildings to promote wellness.

Initiative 7.3: Reuse of buildings and building materials

Reduce the need for new construction and new materials to prevent waste and reduce energy and resource use

Sub-initiative	State action steps
7.3.1 Increase adaptive building reuse and continued use	7.3.1.1 Modify B3 and other building rating systems related to carbon accounting to include carbon emitted and loss of embodied energy when demolishing an existing building to make way for a new building.
	7.3.1.2 Develop and codify best practices and considerations for adaptive building reuse and identification of uses that fit individual buildings.
	7.3.1.3 Expand access to building assessment tools and other technical assistance and training to developers, design professionals, and the construction workforce to support structure repair and the adaptive reuse and continued use of existing buildings.
	7.3.1.4 Create new and improve and expand existing tax credit programs to increase access, participation, and use of the programs to incentivize building reuse.
	7.3.1.5 Develop building performance standards to support the reuse of existing buildings and tenant spaces based on size and use.
	7.3.1.6 Adopt building and energy codes to support adaptive reuse and continued use of existing buildings.
7.3.2 Increase building deconstruction and material reuse to avoid demolition of buildings that cannot be reused	7.3.2.1 Research and develop best practices for reusing salvaged materials in new construction and rehabilitation projects.
	7.3.2.2 Expand the use of material conservation and material management plans, establishing targets and guidance to increase material salvage, material reuse, and recycling of materials.
	7.3.2.3 Create a building material diversion and reuse program to provide drop-off locations for building materials and a place for consumers to buy the materials, creating more predictability in the reused material market and reducing risk.
	7.3.2.4 Communicate the benefits of building material reuse to build stakeholder awareness and drive market response.
	7.3.2.5 Provide education and technical assistance to developers, design professionals, material contractors, and the construction workforce for structural repair and to support the partial or full deconstruction of existing buildings rather than demolition.
	7.3.2.6 Develop financial incentives to support the deconstruction of existing buildings and reuse of construction materials in new projects.
	7.3.2.7 Disincentivize demolition by establishing deconstruction standards and requirements.
7.3.3 Decrease construction waste	7.3.3.1 Expand recycling of construction waste that cannot be reused in the construction market, investing in the development and expansion of recycling markets for building materials.

Updating Minnesota's Climate Action Framework: Draft Action Steps

Meeting with Climate Water Council Policy Committee

July 25, 2025

Kate Knuth, Climate Director, MPCA

OUR MINNESOTA CLIMATE

Agenda

- 2025 Climate Action Framework overview
- Developing the Framework
- Draft Action Steps overview
- Discussion

Minnesota's Climate Action Framework

MINNESOTA

The climate vision for our state

The vision for our state embodied in this framework is:

Carbon-neutral
By 2050, Minnesota substantially reduces greenhouse gas (GHG) emissions and balances any GHG emissions with carbon storage, especially in our landscapes.

Resilient
Minnesota communities, businesses, and the natural environment can prepare, respond to, and recover from the impacts of climate change so all Minnesotans can thrive in the face of these challenges.

Equitable
Minnesotans acknowledge and address inequitable and inaccessible systems that contribute to some communities experiencing disproportionate climate change impacts; ensure fair distribution of the costs and benefits of action now and to future generations; and ensure meaningful participation in planning.

Climate Action Framework Targets

Align with the best science from the Intergovernmental Panel on Climate Change

Reduce GHGs 50% by 2030

Net-zero emissions by 2050

Prioritize resilience investment over the next 10 years

Need action by all levels of government, businesses, nonprofits, and individuals

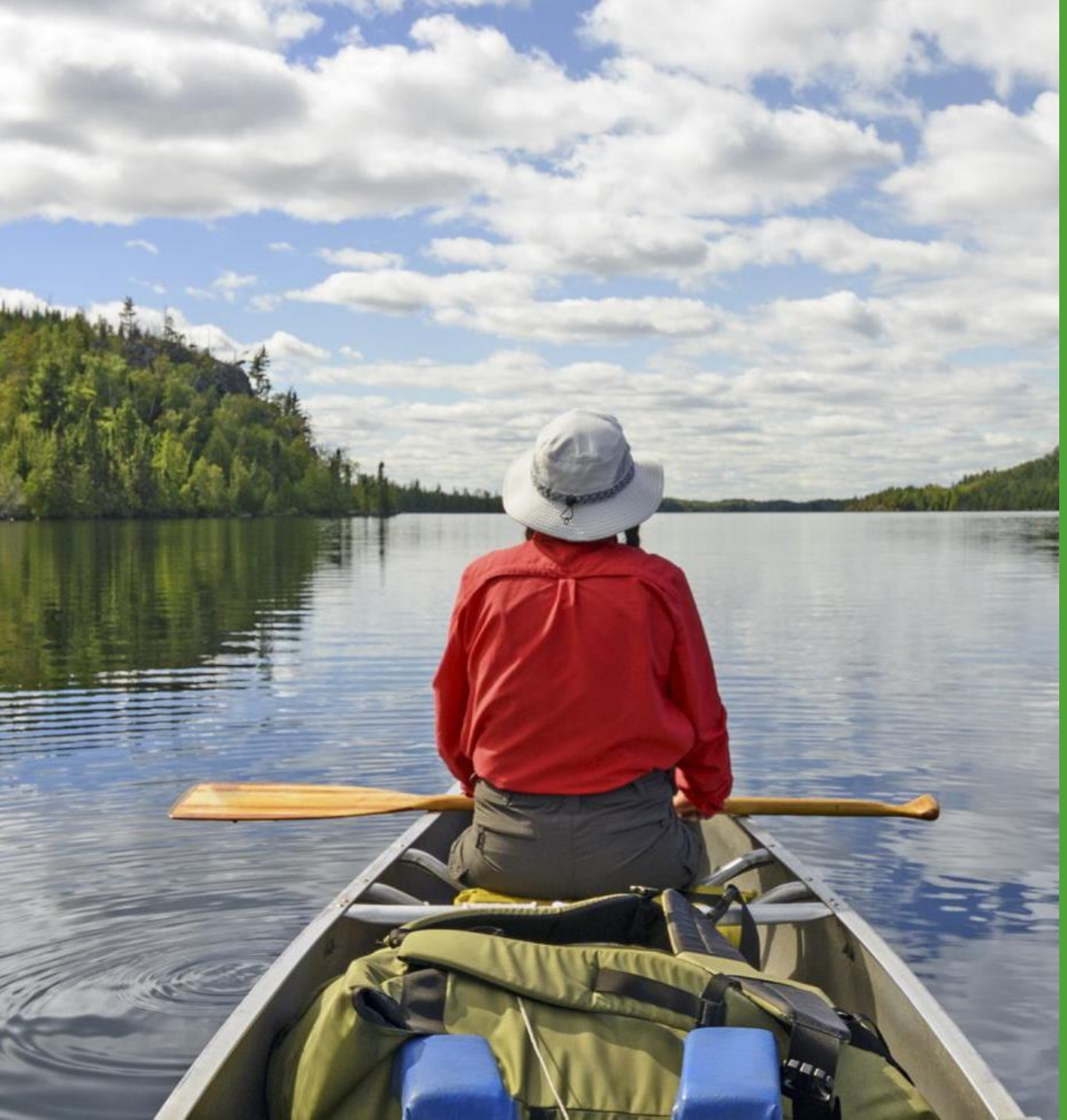
Minnesota leaps forward…

State actions:

- 2023 Legislature = 40+ climate action programs

Federal actions:

- Infrastructure Investment & Jobs Act (IIJA)
- Inflation Reduction Act (IRA)



Recognizing a shifting federal landscape

As we've navigated this changing landscape, our 2025 Climate Action Framework timeline has stretched longer than previously anticipated.

Minnesota remains committed to climate leadership and the vision of the Climate Action Framework.

This climate leadership is essential for protecting the health and well-being of Minnesotans. The 2025 Climate Action Framework will reflect this ongoing commitment and leadership.

Framework goal areas

Organizing our work

Clean transportation

Climate-smart natural and working lands

Resilient communities

Clean energy and electricity

Healthy lives and communities

Clean economy

Efficient and resilient buildings

Definitions

Climate action: A nested approach

- **Goals –** Ideas of the future we are trying to achieve in broad sectors (e.g., transportation, health, energy)
  - **Initiatives –** Objectives that will help achieve the goals
    - **Subinitiatives –** Key efforts that will deliver the outputs and outcomes needed to achieve the initiative
      - **Action steps –** State-led activities that help implement the subinitiatives

How we engage and coordinate

External

- Governor's Advisory Council on Climate Change
- Sector-based conversations
  - One for each of the goal areas
  - Tribal coordination
  - Local government implementation
  - Climate equity
  - Greenhouse gas modeling
- Government-to-government meetings with Tribal Nations
- Public webinars and online engagement portal
- Meetings with community-based organizations, councils, and others

Internal

- Climate Change Subcabinet and its subteams

Opportunities for broad public feedback

1

Winter 2025

Ideas for Climate Action: Revised initiatives and subinitiatives

2

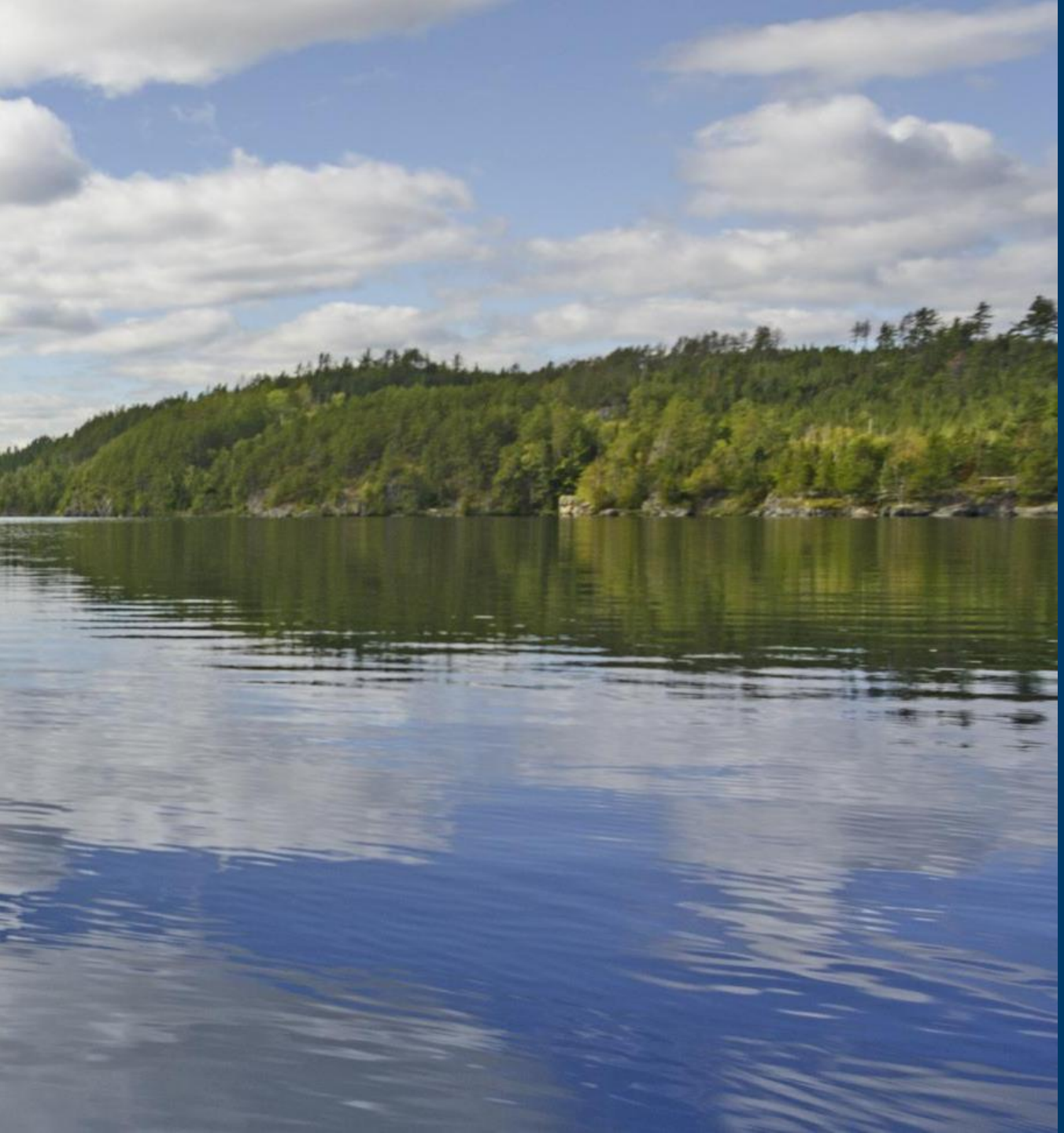
June/July 2025

Draft action steps

3

Fall 2025

Draft 2025 Climate Action Framework



How was feedback on the Ideas for Climate Action document used?

We received feedback from sector-based conversations and over 200 public comments

We reviewed feedback, organized it by chapter and initiative, and shared it directly with goal teams

Goal teams revised initiatives and subinitiatives, informed by the feedback

Summary is available on our online engagement platform

Action numbering

Climate action: A nested approach (note numbers)

- 1 Goals
  - 1.1 Initiatives
    - 1.1.1 Subinitiatives
      - 1.1.1.1 Action steps

There are over 400 action steps.

How to navigate the draft action steps tables

Goal 1 – Clean transportation

Connect and serve all people through a safe, equitable, and sustainable transportation system

Initiative 1.1: Travel options

Maintain and improve multimodal transportation connections to improve mobility and reduce emissions

Sub-initiative	State action steps
1.1.1 Design, implement, and maintain infrastructure network improvements for walking, rolling, and bicycling	1.1.1.1 Scope transportation projects, including projects in Greater Minnesota, to include facilities for people walking, bicycling, rolling, and taking transit.
	1.1.1.2 Evaluate current funding priorities and direct more resources towards non-motorized transportation to support improved pedestrian and bicycle facilities that are safe, attractive, and accessible for all people.

Things to consider

- How do the action steps support the state's climate vision (carbon neutrality, resilience, and equity)?
- What would be the state's role in the action: lead, enact, or encourage?